WHAT IS CLAIMED IS:

1. A method for management of a dynamic range of a radiological image comprising:

acquiring an image of an object with a radiology apparatus having a detector and a source of radiation, the image thus acquired possessing a wide dynamic range of acquisition;

computing a radiological thicknesses of the image of the object crossed by the radiation;

filtering the image of the radiological thicknesses to obtain a context image;

subtracting the context image from the image of the radiological thicknesses to obtain an image of the details;

processing the context image by means of a first table computed from the image of the radiological thicknesses to obtain an image with a reduced dynamic range;

processing the context image by means of a second table computed from the image of the radiological thicknesses to obtain an image of coefficients which will then weight the image of the details to obtain an image of enhanced details; and

adding together the image with reduced dynamic range and the image of the enhanced details to obtain an image with reduced dynamic range and heightened contrast in which the differences between the anatomical structures are preserved, and the dynamic range of the image with reduced dynamic range and heightened contrast is compressed so that it is contained within the dynamic range of an imaging device with a small dynamic range, this small dynamic range being smaller than the wide dynamic range.

2. The method according to claim 1 wherein:

to obtain the image of the enhanced details, the image of the details is weighted, pixel by pixel, by an image of coefficients, the values of the coefficients being a positive function of the values of the context image at their position.

3. The method according claim 1 wherein:

the context image is built from the image of the radiological thicknesses by a median filtering, or by a statistical filtering of another type.

4. The method according claim 2 wherein:

the context image is built from the image of the radiological thicknesses by a median filtering, or by a statistical filtering of another type.

5. The method according to claim 1 wherein:

the function applied to each pixel of the context image to obtain the image with reduced dynamic range is positive, linear by pieces and non-decreasing and/or the coefficients which, in each pixel, multiply the detail image to obtain the image of the enhanced details are computed by applying a positive function, that is constant by pieces, to each pixel of the context image, the coefficients being smaller than 1 if the contrast at their position has to be reduced, equal to 1 if the contrast at their position has to be kept as it is and greater than 1 if the contrast at their position has to be heightened.

6. The method according to claim 2 wherein:

the function applied to each pixel of the context image to obtain the image with reduced dynamic range is positive, linear by pieces and non-decreasing and/or the coefficients which, in each pixel, multiply the detail image to obtain the image of the enhanced details are computed by applying a positive function, that is constant by pieces, to each pixel of the context image, the coefficients being smaller than 1 if the contrast at their position has to be reduced, equal to 1 if the contrast at their position has to be kept as it is and greater than 1 if the contrast at their position has to be heightened.

7. The method according to claim 3 wherein:

the function applied to each pixel of the context image to obtain the image with reduced dynamic range is positive, linear by pieces and non-decreasing and/or the coefficients which, in each pixel, multiply the detail image to obtain the image of the enhanced details are computed by applying a positive function, that is constant by pieces, to each pixel of the context image, the coefficients being smaller than 1 if the contrast at their position has to be reduced, equal to 1 if the contrast at their position has to be kept as it is and greater than 1 if the contrast at their position has to be heightened.

8. The method according to claim 1 wherein:

the compression of the dynamic range is obtained by a positive and non-decreasing function, characterized by two parameters adjustable by the user, the parameter, which controls the maximum differential gain, and the parameter that defines the maximum differential gain level in the starting dynamic range.

9. The method according to claim 2 wherein:

the compression of the dynamic range is obtained by a positive and non-decreasing function, characterized by two parameters adjustable by the user, the parameter that controls the maximum differential gain and the parameter which defines the maximum differential gain level in the starting dynamic range.

10. The method according to claim 3 wherein:

the compression of the dynamic range is obtained by a positive and non-decreasing function, characterized by two parameters adjustable by the user, the parameter that controls the maximum differential gain and the parameter which defines the maximum differential gain level in the starting dynamic range.

11. The method according to claim 4 wherein:

the compression of the dynamic range is obtained by a positive and non-decreasing function, characterized by two parameters adjustable by the user, the parameter that controls the maximum differential gain and the parameter which defines the maximum differential gain level in the starting dynamic range.

12. The method according to claim 8 wherein:

the operations of processing the images of context and the images of the details are modified as a function of the value that controls the maximum differential gain selected by the user.

13. The method according to claim 2 wherein:

the operations of processing the images of context and the images of the details are modified as a function of the value that controls the maximum differential gain selected by the user.

14. The method according to claim 3 wherein:

the operations of processing the images of context and the images of the details are modified as a function of the value that controls the maximum differential gain selected by the user.

15. The method according to claim 4 wherein:

the operations of processing the images of context and the images of the details are modified as a function of the value that controls the maximum differential gain selected by the user.

16. The method according to claim 1 wherein:

the computations of the two functions used to modify the images of context and of the details are predefined as functions of proportion of object structure, and are adapted by a calibration procedure to each radiological thickness image.

17. The method according to claim 2 wherein:

the computations of the two functions used to modify the images of context and of the details are predefined as functions of proportion of object structure, and are adapted by a calibration procedure to each radiological thickness image.

18. The method according to claim 3 wherein:

the computations of the two functions used to modify the images of context and of the details are predefined as functions of proportion of object structure, and are adapted by a calibration procedure to each radiological thickness image.

19. The method according to claim 4 wherein:

the computations of the two functions used to modify the images of context and of the details are predefined as functions of proportion of object structure, and are adapted by a calibration procedure to each radiological thickness image.

20. The method according to claim 8 wherein:

the computations of the two functions used to modify the images of context and of the details are predefined as functions of proportion of object structure, and are adapted by a calibration procedure to each radiological thickness image.

21. The method according to claim 12 wherein:

the computations of the two functions used to modify the images of context and of the details are predefined as functions of proportion of object structure, and are adapted by a calibration procedure to each radiological thickness image.